

**ABSTRACT**

An OAM capability discovery method in Ethernet passive optical network is disclosed. An OLT assigns identifications according to a registration request of the plurality of ONUs connected to the OLT. In response, the OLT transmits an OAM capability information message of the OLT to a random ONU from among the registered plurality of ONUs, and the random ONU transmits an OAM capability information message of the random ONU to the OLT, then finally the OLT transmits an OAM capability discovery completion message to ONU.